SYSTP Functions under TIAM and UTM

This section provides information on the SYSTP utility functions available under TIAM and UTM.

To invoke the SYSTP functions under TIAM and UTM

- On the Natural SYSTP Utility Main Menu, in the Code field, enter **E** for Environment-Dependent Functions.

On the menu displayed then, you can select the following functions which are explained in this section:

- P-Key Utility
- Show Common Memory Pools

P-Key Utility

This function supports the loading of programmable P keys on Siemens 975X terminals under the TP monitors TIAM and UTM.

This function allows you to either load the standard Natural key settings (function-key mode KN, KO or KS) to the keys P1 to P20 or to load user-defined values to individual keys.

When you invoke the P-Key utility, the following menu appears:

```
15:54:05              ***** NATURAL SYSTP UTILITY *****              1998-03-25
User VR000001                  -  P-Key Utility -                 TID 0709


                       Code   Function           Parameter

                        KU    Load User Values   A,H
                        KS    Set KS Mode        L,N
                        KN    Set KN Mode        L,N
                        KO    Set KO Mode        L,N
                        KF    Load F1 - F20
                        ?     Help
                        .     Exit


               Code .. __              Parameter  A




Select function.
Command ===>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Menu  Exit  KU    KS    KSN   KN    KNN   KO    KON   KF    Canc
```

On this menu, you enter a function code and an optional parameter code. The valid parameter codes for a function are listed to the right of the function. The various codes have the following meaning.

Parameter	Meaning
A	Values are entered in alphanumeric format.
H	Values can be entered in alphanumeric or hexadecimal format.
L	Load option. Mode is set and P keys are loaded.
N	No-load option. Mode is set, but P keys are not loaded.

Load User Values

This function allows you to load your own values to the keys P1 to P20 (for example, terminal functions, send codes). Values can be entered either in alphanumeric or hexadecimal format. You choose the desired format by entering **A** (alphanumeric format) or **H** (hexadecimal or alphanumeric format) in the Parameter field on the menu. When you invoke the Load User Values function (by pressing PF4 or by entering Code **KU** on the menu of the P-key utility), the following screen is displayed:

```
 15:55:41              ***** NATURAL SYSTP UTILITY *****              1998-06-25
 User VR000001                 - Edit User Keys -                  TID VR000001

 P1:             _____________________
                 4040404040404040404040404040404040404040404040
 P2:             _____________________
                 4040404040404040404040404040404040404040404040
 P3:             _____________________
                 4040404040404040404040404040404040404040404040
 P4:             _____________________
                 4040404040404040404040404040404040404040404040
 P5:             _____________________
                 4040404040404040404040404040404040404040404040
 P6:             _____________________
                 4040404040404040404040404040404040404040404040
 P7:             _____________________
                 4040404040404040404040404040404040404040404040
 P8:             _____________________
                 4040404040404040404040404040404040404040404040
  Function ( + / - / L / . )   _                        Mode:    ALPHA
  Select function or fill up values for P-Keys.
  Command ===>
 Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
             Menu  Exit  Load               -     +                       Canc
```

The Mode is set to HEX or ALPHA depending on the parameter you specify when invoking the function. You can switch modes by overwriting the existing mode with A(LPHA) or H(EX).

- In ALPHA mode, you can use the left half of the screen to enter an alphanumeric value next to the key you wish it to be loaded to.
- In HEX mode, you can also assign a value to a key in hexadecimal form on the right half of the screen.

For each P key, enter an alphanumeric value in the empty input field or a hexadecimal value in the line below it (for Parameter Value **A**, the hexadecimal field is input blocked).

If no value is specified for a key, the standard Natural key setting (function-key mode KN, KO or KS) applies for this key; thus, it is possible to have a mixed P-key usage; that is, some keys with user-defined functions, others with the standard Natural functions.

Load the values by pressing PF4 or by entering **L** in the Function field.

Page the screen to additional P keys by pressing PF8 or by entering a plus (+) sign in the Function field.

Note:
Natural automatically converts all binary values which are smaller than H’40’ to H’6F’ (= question mark). So, before any binary values smaller than H’40’ can be loaded, the macro CMTAB (translation table) has to be changed accordingly so as to avoid this automatic conversion. This is particularly important for H’27’ (= ESCAPE) and H’19’ (= Endemarke). Whenever CMTAB is modified, the Natural print mode module NATPM has to be reassembled and relinked to the Natural nucleus.

Set Key Assignment Mode

The following functions are used to set key assignment modes on Siemens terminals:

Mode	Function
Set KS Mode	Executes the terminal command %KS and is invoked either by pressing PF5 or by entering Code **S** on the menu of the P-key utility.
Set KN Mode	Executes the terminal command %KN and is invoked either by pressing PF7 or by entering Code **N** on the menu of the P-key utility.
Set KO Mode	Executes the terminal command %KO and is invoked either by pressing PF9 or by entering Code **O** on the menu of the P-key utility.

For a full explanation of key assignment modes, see Natural under BS2000/OSD in the Natural Operations for Mainframes documentation.

Loading Send-Key Codes to P Keys

This function is used to load specific send-key (F) codes F1 to F20 to the keys P1 to P20. The function is similar to the key assignment mode KN, except that F codes can be selected individually.

When this function is invoked, the following screen appears:

```
15:56:34              ***** NATURAL SYSTP UTILITY *****              1998-06-25
User VR000001                   - Load F-Codes -                   TID VR000001



 P01   _          P02   _          P03   _          P04   _          P05   _

 P06   _          P07   _          P08   _          P09   _          P10   _

 P11   _          P12   _          P13   _          P14   _          P15   _

 P16   _          P17   _          P18   _          P19   _          P20   _



Mark P-Key to be loaded with F-Code
Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Load        Menu  Exit                                                   Canc
```

To load P keys with F codes, mark the appropriate keys and press ENTER. Only the keys which are marked are loaded with F codes. Other P keys retain their original values.

Application Programming Interface LPFSUP01

The Load User Values function is also available to user applications as an application programming interface (API). The API consists of the Natural subprogram LPFSUP01, which performs the loading of the keys. LPFSUP01 can be copied into user libraries or steplibs.

LPFSUP01 is called as follows:

```
CALLNAT 'LPFSUP01' P-VALUE(*)
```

P-VALUE must be defined as an array: (A24/20).

Example:

```
DEFINE DATA LOCAL
   1 P-VALUE (A24/20)
END-DEFINE
* LOAD '/STA L EM DUE1' TO P1, '/STA P EM DUE1' TO P4
COMPRESS '/STA L' h'192786' INTO P-VALUE(1)
COMPRESS '/STA P' h'192786' INTO P-VALUE(4)
CALLNAT 'LPFSUP01' P-VALUE(*)
END
```

See also the example LPFEXAM1 in the library SYSTP.

Show Common Memory Pools

This function displays a list of all common memory pools used in Natural.

The individual items of information shown for each common memory pools are explained in the online help of this function.

